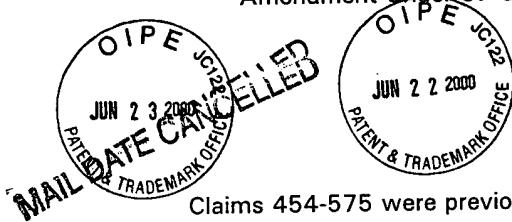


Dean L. Engelhardt, et al.
Serial No.: 08/479,997
Filed: June 7, 1995
Page 4 [Second Supplemental Amendment to Applicants' January 4, 2000
Amendment Under 37 C.F.R. §1.115 - June 22, 2000]



REMARKS

Claims 454-575 were previously pending in this application. Claims 463, 479, 480, 491, 507, 508, 520, 548, 564 and 565 have been rewritten above and substituted for the previous counterparts. No claims have been added or canceled. Accordingly, claims 454-575 as amended are presented for further examination in this application.

In the specification, disclosure which was previously deleted has been re-inserted. That disclosure spanned over fifty pages (pages 1 through page 52, line 20) and comprised the patent disclosure of Dr. David C. Ward and his group at Yale University. Filed on April 17, 1981 and originally accorded U.S. Patent Application Serial No. 06/223,255, Dr. Ward's disclosure culminated in four separate U.S. patents. Because it was incorporated by reference into the present application, the deletion of Dr. Ward's disclosure in Applicants' June 7, 1995 Preliminary Amendment was thought at that time to be an appropriate step. Upon further reflection, however, Applicants and their attorney believe that the re-insertion of Dr. Ward's disclosure will improve the readability of the present application, thereby aiding future readers in understanding better the present invention being claimed.

No issue of new matter is believed to have been raised by the re-insertion of the previously deleted pages. Entry of the previously deleted disclosure is respectfully requested.

Several claims have also been rewritten in an effort to clear up some minor deficiencies or inconsistencies in their language. These rewritten claims include claims 463, 479-480, 491, 507-508, 520, 548 and 564-565. Claims 463 and 520 have been rewritten to recite "wherein said PM is a monophosphate, a diphosphate or a triphosphate and said Sig moiety is covalently attached to said PM through a phosphorus atom or a phosphate oxygen." As rewritten, claim 479 recites "wherein the sugar moiety of said terminal nucleotide has a hydrogen atom at the 2' position thereof." Similar changes have been made to claims 507 and 564, both of which recite in their rewritten forms that "z of said terminal nucleotide comprises a hydrogen atom at the 2' position thereof." Claim 480 has also been rewritten, this claim now reading "wherein the sugar moiety of said terminal

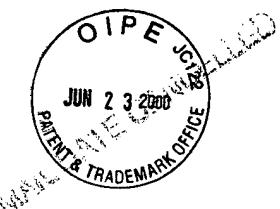
Dean L. Engelhardt, et al.
Serial No.: 08/479,997
Filed: June 7, 1995
Page 5 [Second Supplemental Amendment to Applicants' January 4, 2000
Amendment Under 37 C.F.R. §1.115 - June 22, 2000]

nucleotide has hydrogen atoms at each of the 2' and 3' positions thereof." A similar recitation appears in rewritten claims 508 and 565 ("wherein both y and z of said terminal nucleotide comprise a hydrogen atom at each of the 3' and 2' positions thereof, respectively"). Lastly, claims 491 and 548 in their rewritten forms recite "wherein said x and y each comprise a member selected from the group consisting of a monophosphate, a diphosphate and a triphosphate and said Sig moiety is covalently attached to either or both of said x and y through a phosphorus atom or a phosphate oxygen."

No new matter is believed to be inserted by the rewritten claims above.
Their entry is respectfully requested.

* * * * *

Dean L. Engelhardt, et al.
Serial No.: 08/479,997
Filed: June 7, 1995
Page 6 [Second Supplemental Amendment to Applicants' January 4, 2000
Amendment Under 37 C.F.R. §1.115 - June 22, 2000]



SUMMARY AND CONCLUSIONS

No claims have been added or canceled by this paper. Claims 463, 479-480, 491, 507-508, 520, 548 and 564-565 have been rewritten above. Thus, 454-575 as amended are presented for further examination in this application.

No fee or fees are believed due for filing this Second Supplemental Amendment. In the event that any other fee or fees are due, however, authorization is hereby given to charge the amount of any such fee(s) to Deposit Account No. 05-1135, or to credit any overpayment thereto.

If a telephone conversation would further the prosecution of the present application, Applicants' undersigned attorney request that he be contacted at the number provided below.

Respectfully submitted,

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